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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,520	10/12/2001	Gardner S. Haynes	33539US1	2626

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EXAMINER

ZIMMERMAN, JOHN J

ART UNIT	PAPER NUMBER
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1775

DATE MAILED: 03/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 09/976,520	Applicant(s) HAYNES ET AL.	
	Examiner John J. Zimmerman	Art Unit 1775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 6) ☐ Other: _____

FIRST OFFICE ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 2 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Miller (U.S. Patent 3,750,253) or Heronemus (U.S. Patent 4,497,363).

3. Miller discloses cladding a copper alloy (containing 15-75 percent nickel) on a core of steel (e.g. see column 3, lines 24-27). This cladding can be done by roll bonding (e.g. see column 3, lines 51-60). Miller's layered composite meets all the physical limitations required by the rejected claims. The melting point of the cladding is lower than the melting point of the core material. Heronemus discloses cladding a copper-nickel alloy (e.g. copper alloy 715) on a substrate of steel (e.g. see column 6, lines 16-36). Heronemus's layered composite meets all the physical limitations required by the rejected claims. The melting point of the cladding is lower

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than the melting point of the core material. Although it is noted that Miller or Heronemus may not intend for his composites to be brazed, the compositions of the composites meet the physical limitations required by the claims and therefore would inherently be capable of meeting applicant's intended use. Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977). A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

4. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Kubota (Japanese publication 56-095479).

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5. Kubota discloses cladding a copper-aluminum alloy on steel (e.g. see abstract and entire article). The melting point of the cladding is lower than the melting point of the steel material. Although it is noted that Kubota may not intend for his composites to be brazed, the composition of the composite meets the physical limitations required by the claims and therefore would inherently be capable of meeting applicant's intended use. Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977). A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 3-17 and 23-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forand (U.S. Patent 3,912,152).

8. Forand discloses roll cladding pure aluminum and/or pure copper or their alloys (e.g. see column 4, lines 26-31) on one or both surfaces of a ferrous substrate (e.g. see column 2, lines 23-30). Typical thicknesses of the claddings and substrate are disclosed (e.g. see column 3, lines 18-22). The melting point of the cladding is lower than the melting point of the core material (e.g. see column 2, lines 45-62). Forand may differ from the claims in that no specific working example of a copper and aluminum combination on both sides of the ferrous substrate may be set forth, but it would have been obvious to one of ordinary skill in the art at the time the invention was made that Forand's disclosure is intended to cover using aluminum and copper combinations on each side of a ferrous substrate since Forand specifically refers to "copper and/or aluminum" claddings on either one or both sides of the ferrous substrate. Regarding claims to specific layer thicknesses, Forand gives various guidelines for layer thicknesses, and it would have been obvious to one of ordinary skill in the art to use any layer thicknesses within Forand's general guidelines. Since Forand is specific to ferrous substrates, it would be understood by one of ordinary skill in the art that any ferrous substrate material (e.g. carbon steel, stainless steel, tool steel, etc. . .) could be used in practicing Forand's invention. Although it is noted that Forand may not intend for his composites to be brazed, the compositions of the Forand composite meet

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the physical limitations required by the claims and therefore would inherently be capable of meeting applicant's intended use. Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977). A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

9. Claims 2-3, 18-22 and 35-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's disclosure of the prior art in view of Okubo (U.S. Patent 5,458,156).

10. Applicant discloses that cladding stainless or carbon steel with self-brazing copper alloys is conventional in the prior art (e.g. see page 1, lines 3-22, "Background of the Invention"). This disclosure differs from the rejected claims mainly in that applicant discloses that self-brazing

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copper and not self-brazing copper-nickel alloys as having been used for prior art clad stainless or carbon steel substrates. Okubu, however, clearly discloses that copper-nickel layer combinations are useful as self-brazing compositions since the nickel increases the adhesion of the copper (e.g. see column 4, lines 43-46). In view of Okubu, it would have been obvious to one of ordinary skill in the art to use copper-nickel layer combinations in applicant's disclosed prior art clad stainless steel or carbon steel heat exchangers because Okubu clearly shows that using a nickel layer with a copper layer in self-brazing applications gives better bonding properties. Regarding the use of applicant's disclosure of the prior art, it is axiomatic that consideration of the prior art cited by the examiner must, of necessity, include consideration of the admitted state of the art found in applicant's specification, *In re Davis*, 305 F.2d 501, 134 USPQ 256 (CCPA 1962); *In re Hedges*, 783 F.2d 1038, 228 USPQ 685 (Fed. Cir. 1986). Admitted knowledge in the prior art may be used in determining patentability of the claimed subject matter, *In re Nomiya*, 509 F.2d 566, 184 USPQ 607 (CCPA 1975).

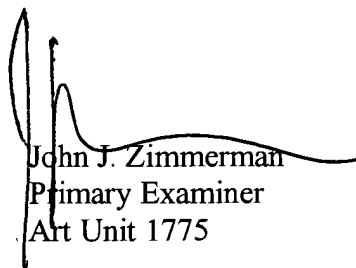
Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Zimmerman whose telephone number is (703) 308-2512. The examiner can normally be reached on 8:30am-5:00pm, M-F. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular

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communications and (703) 872-9311 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



John J. Zimmerman
Primary Examiner
Art Unit 1775

jjz
March 4, 2003